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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,771	12/28/2001	Ulrich Wernz	WERNZ - I	9032
25889	7590	10/09/2003	EXAMINER	
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			MACKEY, JAMES P	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/033,771

Applicant(s)

WERNZ, ULRICH

Examiner

James Mackey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 6) ☐ Other: \_\_\_\_\_

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1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of claims 2-4, insofar as it relates to the structure of the injection molding machine, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. Claims 2-4 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 2-4 merely recite the manner in which the claimed apparatus structure is intended to be operated during its intended use; such relates only to the intended use of the claimed apparatus, which does not patentably distinguish the apparatus structure and therefore does not further limit the subject matter of the apparatus claims. Note that intended use has been continuously held not to be germane to determining the patentability of the apparatus, *In re Finsterwalder*, 168 USPQ 530; the manner or method in which a machine is to be utilized is not germane to the issue of patentability of the machine itself, *In re Casey*, 152 USPQ 235.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 14-15, "being stopped on" is indefinite and unclear as to exactly what is intended to be claimed; on lines 14 and 21, "small", "large", "short-stroke" and "larger" are relative terms which renders the claim indefinite, since the terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention; on line 21, "larger" is indefinite as to which structures are being compared (e.g., larger than what?); line 25, "the **engageable** short-stroke cylinder" lacks proper antecedent basis in the claim; line 26, "piston-and-cylinder system" should be --piston-cylinder system-- to agree with all subsequent claim recitations; and line 29, "the closing unit" (also in dependent claims, see claims 6-8) has not been adequately defined in the claim, since, although the term appears in the claim preamble, the apparatus structure which is encompassed by the term "closing unit" has not been specifically set forth in the claim.

In claim 2, line 2, "briefly", line 6, "randomly greater time intervals" and line 9, "short-stroke operation" are relative terms of indefinite scope.

In claim 3, line 2, "a lifting volume" and "one common chamber" are unclear and indefinite as to where the lifting volume and common chamber located and how they relate to the structural elements of the apparatus structure.

In claim 4, line 4, "short stroke" is a relative term of indefinite scope.

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In claims 13-16, the use of "wheel- or roller-type elements" is indefinite, since it is unclear as to the scope of the term (note *Ex parte Copenhaver*, 109 USPQ 118, wherein the word "type", when appended to an otherwise definite expression, was found to be indefinite).

In claim 13, "support plate" on lines 4 and 7 (as well as in claims 14-15) lacks proper antecedent basis in the claim (note that the support plate is first recited in claim 9).

In claim 15, line 11, "the **engageable** short-stroke cylinder" lacks proper antecedent basis in the claim.

In claim 17, line 6, "the cylinder" should be --the cylinder device-- to clearly refer to the device of lines 4-5.

In claim 18, line 4, and claim 19, line 2, "highly" is a relative term of indefinite scope.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-12, 16, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hettinga (U.S. Patent 5,665,405; Figs. 1-7; col. 5, lines 6-25) in view of Putzler (U.S. Patent 3,737,278).

Hettinga discloses an injection molding machine having a counter pressure plate 30 attached to a stationary mold clamping plate 14 by struts 26; a displaceable mold clamping plate 20 movably guided by the struts; driving cylinders 36 mounted on the counterpressure plate and having piston rods attached to the displaceable mold clamping plate for opening and closing molding tool halves mounted on the respective mold clamping plates; and a "short-stroke"

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hydraulic piston-cylinder system 54 acting between the counterpressure plate and the displaceable mold clamping plate, the piston-cylinder system being retractable and extendable from an external space to the space between the counterpressure plate and the displaceable mold clamping plate; a support plate 46, 48 attached to the counterpressure plate for supporting the sliding movement of the piston-cylinder system, cooperating surfaces of the counterpressure plate and the support plate defining a flat bed; and a transport plate 56 attached to the piston-cylinder system for providing a sliding surface between the piston-cylinder system and the cooperating surfaces of the counterpressure plate and support plate, with cooperating guide elements 50, 52, 60 guiding the movement of the piston-cylinder system relative to the counterpressure plate and support plate (col. 6, lines 11-16). Hettinga does not disclose the struts being vertically aligned and the piston-cylinder system being retractable and extendable in a horizontal direction. Putzler discloses a vertical injection molding machine comprising a counterpressure plate 1 attached to a stationary mold clamping plate (not shown) by vertically aligned struts 2, 3; a displaceable mold clamping plate 12, 13 movably guided by the struts (col. 3, lines 11-14); driving cylinders 15 mounted on the counterpressure plate and having piston rods 16 attached to the displaceable mold clamping plate for opening and closing molding tool halves mounted on the respective mold clamping plates; and a pressure plate 17 acting between the counterpressure plate and the displaceable mold clamping plate for applying a "short-stroke" clamping pressure (via piston-cylinder system 4, 5), the pressure plate being retractable and extendable in a horizontal direction from an external space to the space between the counterpressure plate and the displaceable mold clamping plate. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hettinga by providing the

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struts in a vertical direction and the movable piston-cylinder system being horizontally movable, as disclosed in Putzler, in order to provide the molding machine in a conventional vertical orientation, the functioning of the apparatus structure being unchanged. Note that it has generally been recognized that to shift location of parts when the operation of the device is not otherwise changed is within the level of ordinary skill in the art, *In re Japikse*, 86 USPQ 70; *In re Gazda*, 104 USPQ 400. It would have been further obvious to a skilled artisan to modify Hettinga by providing the means to move the piston-cylinder system as any conventional longitudinal driving means, such as well known piston-cylinder units, spindle drives or gear-and-rack drives (claims 6-8), in order to achieve the longitudinal movement disclosed in Hettinga, and obvious to modify Hettinga by providing the transport plate 56 as detachable from the piston-cylinder system (claim 21) in order to permit replacement of the transport plate when damaged or when the sliding surface becomes worn. Moreover, it would have been obvious and well within the level of ordinary skill in the art at the time of the invention to modify Hettinga by providing friction-reducing means between the piston-cylinder system and the counterpressure plate and support plate, such as conventional surface treatment or lubrication (claims 11-12), in order to facilitate the longitudinal movement of the piston-cylinder system while minimizing the wear on the abutting surfaces.

7. Claims 13-15 and 17-19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The prior art of record does not teach or fairly suggest an injection molding machine in combination with wheel- or roller-type elements mounted on the piston-cylinder system or in or

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on the counterpressure plate and support plate for displacing the lower bottom surface of the piston-cylinder system on the counterpressure plate and support plate, the elements being supported so that the piston-cylinder system is positioned on the counterpressure plate in its working position between the counterpressure plate and the displaceable mold clamping plate, as claimed in claim 13; the prior art of record does not teach or fairly suggest an injection molding machine in combination with a horizontally actuated piston-cylinder device having a piston rod connected to the piston-cylinder system in a bottom zone thereof via a rigid strutting, with a horizontally arranged tube in or underneath the support plate and in the counterpressure plate, the tube guiding the piston rod and the tube being slotted over its length for the passage of the rigid strutting, as claimed in claim 17; the prior art of record does not teach or fairly suggest an injection molding machine in combination with recesses in the lower bottom surface of the piston-cylinder system, each recess accommodating a nozzle to which pressurized gaseous pressure medium is admitted, as claimed in claim 18.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Irie et al. (U.S. Patent 4,484,875) discloses a horizontally displaceable piston-cylinder system 107 (col. 5, lines 35-39).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 703-308-1195. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 703-308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.




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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



James Mackey  
Primary Examiner  
Art Unit 1722

9/30/03

jpm  
September 30, 2003